Reading

One of the key requirements of the Common Core State Standards for Reading is that all students must be able to comprehend texts of steadily increasing complexity as they progress through school. By the time they complete the core, students must be able to read and comprehend independently and proficiently the kinds of complex texts commonly found in college and careers. The first part of this section makes a research-based case for why the complexity of what students read matters. In brief, while reading demands in college, workforce training programs, and life in general have held steady or increased over the last half century, K–12 texts have actually declined in sophistication, and relatively little attention has been paid to students' ability to read complex texts independently. These conditions have left a serious gap between many high school seniors' reading ability and the reading requirements they will face after graduation. The second part of this section addresses how text complexity can be measured and made a regular part of instruction. It introduces a three-part model that blends qualitative and quantitative measures of text complexity with reader and task considerations. The section concludes with three annotated examples showing how the model can be used to assess the complexity of various kinds of texts appropriate for different grade levels.

Why Text Complexity Matters

In 2006, ACT, Inc., released a report called *Reading Between the Lines* that showed which skills differentiated those students who equaled or exceeded the benchmark score (21 out of 36) in the reading section of the ACT college admissions test from those who did not. Prior ACT research had shown that students achieving the benchmark score or better in reading—which only about half (51 percent) of the roughly half million test takers in the 2004–2005 academic year had done—had a high probability (75 percent chance) of earning a C or better in an introductory, credit-bearing course in U.S. history or psychology (two common reading-intensive courses taken by first-year college students) and a 50 percent chance of earning a B or better in such a course.[1]

Surprisingly, what chiefly distinguished the performance of those students who had earned the benchmark score or better from those who had not was not their relative ability in making inferences while reading or answering questions related to particular cognitive processes, such as determining main ideas or determining the meaning of words and phrases in context. Instead, the clearest differentiator was students' ability to answer questions associated with complex texts. Students scoring below benchmark performed no better than chance (25 percent correct) on four-option multiple-choice questions pertaining to passages rated as "complex" on a three-point qualitative rubric described in the report. These findings held for male and female students, students from all racial/ethnic groups, and students from families with widely varying incomes. The most important implication of this study was that a pedagogy focused only on "higher-order" or "critical" thinking was insufficient to ensure that students were ready for college and careers: what students could read, in terms of its complexity, was at least as important as what they could do with what they read.

The ACT report is one part of an extensive body of research attesting to the importance of text complexity in reading achievement. The clear, alarming picture that emerges from the evidence, briefly summarized below[2], is that while the reading demands of college, workforce training programs, and citizenship have held steady or risen over the past fifty years or so, K–12 texts have, if anything, become less demanding. This finding is the impetus behind the Standards' strong emphasis on increasing text complexity as a key requirement in reading.

College, Careers, and Citizenship: Steady or Increasing Complexity of Texts and Tasks

Research indicates that the demands that college, careers, and citizenship place on readers have either held steady or increased over roughly the last fifty years. The difficulty of college textbooks, as measured by Lexile scores, has not decreased in any block of time since 1962; it has, in fact, increased over that period (Stenner, Koons, & Swartz, in press). The word difficulty of every scientific journal and magazine from 1930 to 1990 examined by Hayes and Ward (1992) had actually increased, which is important in part because, as a 2005 College Board study (Milewski, Johnson, Glazer, & Kubota, 2005) found, college professors assign more readings from periodicals than do high school teachers. Workplace reading, measured in Lexiles, exceeds grade 12 complexity significantly, although there is considerable variation (Stenner, Koons, & Swartz, in press). The vocabulary difficulty of newspapers remained stable over the 1963–1991 period Hayes and his colleagues (Hayes, Wolfer, & Wolfe, 1996) studied.

Furthermore, students in college are expected to read complex texts with substantially greater independence (i.e., much less scaffolding) than are students in typical K–12 programs. College students are held more accountable for what they read on their own than are most students in high school (Erickson & Strommer, 1991; Pritchard, Wilson, & Yamnitz, 2007). College instructors assign readings, not necessarily explicated in class, for which students might be held accountable through exams, papers, presentations, or class discussions. Students in high school, by contrast, are

[1]In the 2008–2009 academic year, only 53 percent of students achieved the reading benchmark score or higher; the increase from 2004–2005 was not statistically significant. See ACT, Inc. (2009).
[2]Much of the summary found in the next two sections is heavily influenced by Marilyn Jager Adams's painstaking review of the relevant literature. See Adams (2009).

rarely held accountable for what they are able to read independently (Heller & Greenleaf, 2007). This discrepancy in task demand, coupled with what we see below is a vast gap in text complexity, may help explain why only about half of the students taking the ACT Test in the 2004–2005 academic year could meet the benchmark score in reading (which also was the case in 2008–2009, the most recent year for which data are available) and why so few students in general are prepared for postsecondary reading (ACT, Inc., 2006, 2009).

K–12 Schooling: Declining Complexity of Texts and a Lack of Reading of Complex Texts Independently

Despite steady or growing reading demands from various sources, K–12 reading texts have actually trended downward in difficulty in the last half century. Jeanne Chall and her colleagues (Chall, Conard, & Harris, 1977) found a thirteen-year decrease from 1963 to 1975 in the difficulty of grade 1, grade 6, and (especially) grade 11 texts. Extending the period to 1991, Hayes, Wolfer, and Wolfe (1996) found precipitous declines (relative to the period from 1946 to 1962) in average sentence length and vocabulary level in reading textbooks for a variety of grades. Hayes also found that while science books were more difficult to read than literature books, only books for Advanced Placement (AP) classes had vocabulary levels equivalent to those of even newspapers of the time (Hayes & Ward, 1992). Carrying the research closer to the present day, Gary L. Williamson (2006) found a 350L (Lexile) gap between the difficulty of end-of-high school and college texts—a gap equivalent to 1.5 standard deviations and more than the Lexile difference between grade 4 and grade 8 texts on the National Assessment of Educational Progress (NAEP). Although legitimate questions can be raised about the tools used to measure text complexity (e.g., Mesmer, 2008), what is relevant in these numbers is the general, steady decline—over time, across grades, and substantiated by several sources—in the difficulty and likely also the sophistication of content of the texts students have been asked to read in school since 1962.

There is also evidence that current standards, curriculum, and instructional practice have not done enough to foster the independent reading of complex texts so crucial for college and career readiness, particularly in the case of informational texts. K–12 students are, in general, given considerable scaffolding—assistance from teachers, class discussions, and the texts themselves (in such forms as summaries, glossaries, and other text features)—with reading that is already less complex overall than that typically required of students prior to 1962.[3] What is more, students today are asked to read very little expository text—as little as 7 and 15 percent of elementary and middle school instructional reading, for example, is expository (Hoffman, Sabo, Bliss, & Hoy, 1994; Moss & Newton, 2002; Yopp & Yopp, 2006)—yet much research supports the conclusion that such text is harder for most students to read than is narrative text (Bowen & Roth, 1999; Bowen, Roth, & McGinn, 1999, 2002; Heller & Greenleaf, 2007; Shanahan & Shanahan, 2008), that students need sustained exposure to expository text to develop important reading strategies (Afflerbach, Pearson, & Paris, 2008; Kintsch, 1998, 2009; McNamara, Graesser, & Louwerse, in press; Perfetti, Landi, & Oakhill, 2005; van den Broek, Lorch, Linderholm, & Gustafson, 2001; van den Broek, Risden, & Husebye-Hartmann, 1995), and that expository text makes up the vast majority of the required reading in college and the workplace (Achieve, Inc., 2007). Worse still, what little expository reading students are asked to do is too often of the superficial variety that involves skimming and scanning for particular, discrete pieces of information; such reading is unlikely to prepare students for the cognitive demand of true understanding of complex text.

The Consequences: Too Many Students Reading at Too Low a Level

The impact that low reading achievement has on students' readiness for college, careers, and life in general is significant. To put the matter bluntly, a high school graduate who is a poor reader is a postsecondary student who must struggle mightily to succeed. The National Center for Education Statistics (NCES) (Wirt, Choy, Rooney, Provasnik, Sen, & Tobin, 2004) reports that although needing to take one or more remedial/developmental courses of any sort lowers a student's chance of eventually earning a degree or certificate, "the need for remedial reading appears to be the most serious barrier to degree completion" (p. 63). Only 30 percent of 1992 high school seniors who went on to enroll in postsecondary education between 1992 and 2000 and then took any remedial reading course went on to receive a degree or certificate, compared to 69 percent of the 1992 seniors who took no postsecondary remedial courses and 57 percent of those who took one remedial course in a subject other than reading or mathematics. Considering that 11 percent of those high school seniors required at least one remedial reading course, the societal impact of low reading achievement is as profound as its impact on the aspirations of individual students.

Reading levels among the adult population are also disturbingly low. The 2003 National Assessment of Adult Literacy (Kutner, Greenberg, Jin, Boyle, Hsu, & Dunleavy, 2007) reported that 14 percent of adults read prose texts at "below basic" level, meaning they could exhibit "no more than the most simple and concrete literacy skills"; a similarly small number (13 percent) could read prose texts at the "proficient level," meaning they could perform "more complex and challenging literacy activities" (p. 4). The percent of "proficient" readers had actually declined in a statistically significant way from 1992 (15 percent). This low and declining achievement rate may be connected to a general lack of reading. As reported by the National Endowment for the Arts (2004), the percent of U.S. adults reading literature dropped from 54.0 in 1992 to 46.7 in 2002, while the percent of adults reading *any* book also declined by 7 percent

[3]As also noted in "Key Considerations in Implementing Text Complexity," below, it is important to recognize that scaffolding often is entirely appropriate. The expectation that scaffolding will occur with particularly challenging texts is built into the Standards' grade-by-grade text complexity expectations, for example. The general movement, however, should be toward *decreasing scaffolding* and *increasing independence* both within and across the text complexity bands defined in the Standards.

during the same time period. Although the decline occurred in all demographic groups, the steepest decline by far was among 18-to-24- and 25-to-34-year-olds (28 percent and 23 percent, respectively). In other words, the problem of lack of reading is not only getting worse but doing so at an accelerating rate. Although numerous factors likely contribute to the decline in reading, it is reasonable to conclude from the evidence presented above that the deterioration in overall reading ability, abetted by a decline in K–12 text complexity and a lack of focus on independent reading of complex texts, is a contributing factor.

Being able to read complex text independently and proficiently is essential for high achievement in college and the workplace and important in numerous life tasks. Moreover, current trends suggest that if students cannot read challenging texts with understanding—if they have not developed the skill, concentration, and stamina to read such texts—they will read less in general. In particular, if students cannot read complex expository text to gain information, they will likely turn to text-free or text-light sources, such as video, podcasts, and tweets. These sources, while not without value, cannot capture the nuance, subtlety, depth, or breadth of ideas developed through complex text. As Adams (2009) puts it, "There may one day be modes and methods of information delivery that are as efficient and powerful as text, but for now there is no contest. To grow, our students must read lots, and more specifically they must read lots of 'complex' texts—texts that offer them new language, new knowledge, and new modes of thought" (p. 182). A turning away from complex texts is likely to lead to a general impoverishment of knowledge, which, because knowledge is intimately linked with reading comprehension ability, will accelerate the decline in the ability to comprehend complex texts and the decline in the richness of text itself. This bodes ill for the ability of Americans to meet the demands placed upon them by citizenship in a democratic republic and the challenges of a highly competitive global marketplace of goods, services, and ideas.

It should be noted also that the problems with reading achievement are not "equal opportunity" in their effects: students arriving at school from less-educated families are disproportionately represented in many of these statistics (Bettinger & Long, 2009). The consequences of insufficiently high text demands and a lack of accountability for independent reading of complex texts in K–12 schooling are severe for everyone, but they are disproportionately so for those who are already most isolated from text before arriving at the schoolhouse door.

The Standards' Approach to Text Complexity

To help redress the situation described above, the Standards define a three-part model for determining how easy or difficult a particular text is to read as well as grade-by-grade specifications for increasing text complexity in successive years of schooling (Reading standard 10). These are to be used together with grade-specific standards that require increasing sophistication in students' reading comprehension ability (Reading standards 1–9). The Standards thus approach the intertwined issues of what and how student read.

A Three-Part Model for Measuring Text Complexity

As signaled by the graphic at right, the Standards' model of text complexity consists of three equally important parts.

(1) Qualitative dimensions of text complexity. In the Standards, *qualitative dimensions* and *qualitative factors* refer to those aspects of text complexity best measured or only measurable by an attentive human reader, such as levels of meaning or purpose; structure; language conventionality and clarity; and knowledge demands.

(2) Quantitative dimensions of text complexity. The terms *quantitative dimensions* and *quantitative factors* refer to those aspects of text complexity, such as word length or frequency, sentence length, and text cohesion, that are difficult if not impossible for a human reader to evaluate efficiently, especially in long texts, and are thus today typically measured by computer software.

(3) Reader and task considerations. While the prior two elements of the model focus on the inherent complexity of text, variables specific to particular readers (such as motivation, knowledge, and experiences) and to particular tasks (such as purpose and the complexity of the task assigned and the questions posed) must also be considered when determining whether a text is appropriate for a given student. Such assessments are best made by teachers employing their professional judgment, experience, and knowledge of their students and the subject.

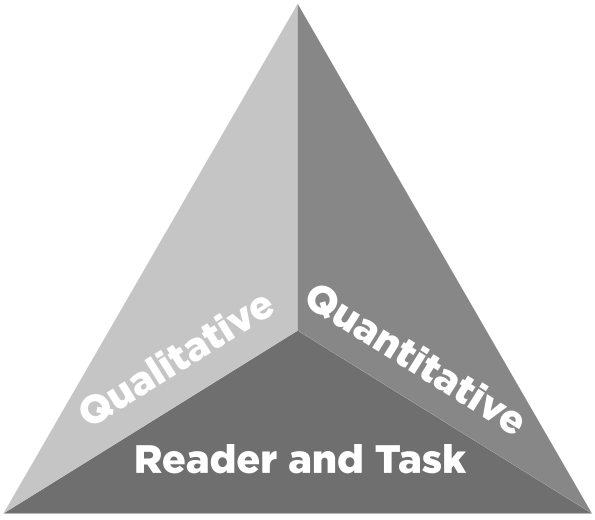


Figure 1: The Standards' Model of Text Complexity

The Standards presume that all three elements will come into play when text complexity and appropriateness are determined. The following pages begin with a brief overview of just some of the currently available tools, both qualitative and quantitative, for measuring text complexity, continue with some important considerations for using text complexity with students, and conclude with a series of examples showing how text complexity measures, balanced with reader and task considerations, might be used with a number of different texts.

Qualitative and Quantitative Measures of Text Complexity

The qualitative and quantitative measures of text complexity described below are representative of the best tools presently available. However, each should be considered only provisional; more precise, more accurate, and easier-to-use tools are urgently needed to help make text complexity a vital, everyday part of classroom instruction and curriculum planning.

Qualitative Measures of Text Complexity

Using qualitative measures of text complexity involves making an informed decision about the difficulty of a text in terms of one or more factors discernible to a human reader applying trained judgment to the task. In the Standards, qualitative measures, along with professional judgment in matching a text to reader and task, serve as a necessary complement and sometimes as a corrective to quantitative measures, which, as discussed below, cannot (at least at present) capture all of the elements that make a text easy or challenging to read and are not equally successful in rating the complexity of all categories of text.

Built on prior research, the four qualitative factors described below are offered here as a first step in the development of robust tools for the qualitative analysis of text complexity. These factors are presented as continua of difficulty rather than as a succession of discrete "stages" in text complexity. Additional development and validation would be needed to translate these or other dimensions into, for example, grade-level- or grade-band-specific rubrics. The qualitative factors run from easy (left-hand side) to difficult (right-hand side). Few, if any, authentic texts will be low or high on all of these measures, and some elements of the dimensions are better suited to literary or to informational texts.

(1) ***Levels of Meaning (literary texts) or Purpose (informational texts).*** Literary texts with a single level of meaning tend to be easier to read than literary texts with multiple levels of meaning (such as satires, in which the author's literal message is intentionally at odds with his or her underlying message). Similarily, informational texts with an explicitly stated purpose are generally easier to comprehend than informational texts with an implicit, hidden, or obscure purpose.

(2) ***Structure.*** Texts of low complexity tend to have simple, well-marked, and conventional structures, whereas texts of high complexity tend to have complex, implicit, and (particularly in literary texts) unconventional structures. Simple literary texts tend to relate events in chronological order, while complex literary texts make more frequent use of flashbacks, flash-forwards, and other manipulations of time and sequence. Simple informational texts are likely not to deviate from the conventions of common genres and subgenres, while complex informational texts are more likely to conform to the norms and conventions of a specific discipline. Graphics tend to be simple and either unnecessary or merely supplementary to the meaning of texts of low complexity, whereas texts of high complexity tend to have similarly complex graphics, graphics whose interpretation is essential to understanding the text, and graphics that provide an independent source of information within a text. (Note that many books for the youngest students rely heavily on graphics to convey meaning and are an exception to the above generalization.)

(3) ***Language Conventionality and Clarity.*** Texts that rely on literal, clear, contemporary, and conversational language tend to be easier to read than texts that rely on figurative, ironic, ambiguous, purposefully misleading, archaic or otherwise unfamiliar language or on general academic and domain-specific vocabulary.

(4) ***Knowledge Demands.*** Texts that make few assumptions about the extent of readers' life experiences and the depth of their cultural/literary and content/discipline knowledge are generally less complex than are texts that make many assumptions in one or more of those areas.

Figure 2: Qualitative Dimensions of Text Complexity

Levels of Meaning (literary texts) or Purpose (informational texts)

- Single level of meaning → Multiple levels of meaning
- Explicitly stated purpose → Implicit purpose, may be hidden or obscure

Structure

- Simple → Complex
- Explicit → Implicit
- Conventional → Unconventional (chiefly literary texts)
- Events related in chronological order → Events related out of chronological order (chiefly literary texts)
- Traits of a common genre or subgenre → Traits specific to a particular discipline (chiefly informational texts)
- Simple graphics → Sophisticated graphics
- Graphics unnecessary or merely supplementary to understanding the text → Graphics essential to understanding the text and may provide information not otherwise conveyed in the text

Language Conventionality and Clarity

- Literal → Figurative or ironic
- Clear → Ambiguous or purposefully misleading
- Contemporary, familiar → Archaic or otherwise unfamiliar
- Conversational → General academic and domain-specific

Knowledge Demands: Life Experiences (literary texts)

- Simple theme → Complex or sophisticated themes
- Single themes → Multiple themes
- Common, everyday experiences or clearly fantastical situations → Experiences distinctly different from one's own
- Single perspective → Multiple perspectives
- Perspective(s) like one's own → Perspective(s) unlike or in opposition to one's own

Knowledge Demands: Cultural/Literary Knowledge (chiefly literary texts)

- Everyday knowledge and familiarity with genre conventions required → Cultural and literary knowledge useful
- Low intertextuality (few if any references/allusions to other texts) → High intertextuality (many references/allusions to other texts)

Knowledge Demands: Content/Discipline Knowledge (chiefly informational texts)

- Everyday knowledge and familiarity with genre conventions required → Extensive, perhaps specialized discipline-specific content knowledge required
- Low intertextuality (few if any references to/citations of other texts) → High intertextuality (many references to/citations of other texts)

Adapted from ACT, Inc. (2006). *Reading between the lines: What the ACT reveals about college readiness in reading.* Iowa City, IA: Author; Carnegie Council on Advancing Adolescent Literacy. (2010). *Time to act: An agenda for advancing adolescent literacy for college and career success.* New York: Carnegie Corporation of New York; Chall, J. S., Bissex, G. L., Conrad, S. S., & Harris-Sharples, S. (1996). *Qualitative assessment of text difficulty: A practical guide for teachers and writers.* Cambridge, UK: Brookline Books; Hess, K., & Biggam, S. (2004). A discussion of "increasing text complexity." Published by the New Hampshire, Rhode Island, and Vermont departments of education as part of the New England Common Assessment Program (NECAP). Retrieved from www.nciea.org/publications/TextComplexity_KH05.pdf

Quantitative Measures of Text Complexity

A number of quantitative tools exist to help educators assess aspects of text complexity that are better measured by algorithm than by a human reader. The discussion is not exhaustive, nor is it intended as an endorsement of one method or program over another. Indeed, because of the limits of each of the tools, new or improved ones are needed quickly if text complexity is to be used effectively in the classroom and curriculum.

Numerous formulas exist for measuring the readability of various types of texts. Such formulas, including the widely used Flesch-Kincaid Grade Level test, typically use word length and sentence length as proxies for semantic and syntactic complexity, respectively (roughly, the complexity of the meaning and sentence structure). The assumption behind these formulas is that longer words and longer sentences are more difficult to read than shorter ones; a text with many long words and/or sentences is thus rated by these formulas as harder to read than a text with many short words and/or sentences would be. Some formulas, such as the Dale-Chall Readability Formula, substitute word frequency for word length as a factor, the assumption here being that less familiar words are harder to comprehend than familiar words. The higher the proportion of less familiar words in a text, the theory goes, the harder that text is to read. While these readability formulas are easy to use and readily available—some are even built into various word processing applications—their chief weakness is that longer words, less familiar words, and longer sentences are not inherently hard to read. In fact, series of short, choppy sentences can pose problems for readers precisely because these sentences lack the cohesive devices, such as transition words and phrases, that help establish logical links among ideas and thereby reduce the inference load on readers.

Like Dale-Chall, the Lexile Framework for Reading, developed by MetaMetrics, Inc., uses word frequency and sentence length to produce a single measure, called a Lexile, of a text's complexity. The most important difference between the Lexile system and traditional readability formulas is that traditional formulas only assign a score to texts, whereas the Lexile Framework can place both readers and texts on the same scale. Certain reading assessments yield Lexile scores based on student performance on the instrument; some reading programs then use these scores to assign texts to students. Because it too relies on word familiarity and sentence length as proxies for semantic and syntactic complexity, the Lexile Framework, like traditional formulas, may underestimate the difficulty of texts that use simple, familiar language to convey sophisticated ideas, as is true of much high-quality fiction written for adults and appropriate for older students. For this reason and others, it is possible that factors other than word familiarity and sentence length contribute to text difficulty. In response to such concerns, MetaMetrics has indicated that it will release the qualitative ratings it assigns to some of the texts it rates and will actively seek to determine whether one or more additional factors can and should be added to its quantitative measure. Other readability formulas also exist, such as the ATOS formula associated with the Accelerated Reader program developed by Renaissance Learning. ATOS uses word difficulty (estimated grade level), word length, sentence length, and text length (measured in words) as its factors. Like the Lexile Framework, ATOS puts students and texts on the same scale.

A nonprofit service operated at the University of Memphis, Coh-Metrix attempts to account for factors in addition to those measured by readability formulas. The Coh-Metrix system focuses on the cohesiveness of a text—basically, how tightly the text holds together. A high-cohesion text does a good deal of the work for the reader by signaling relationships among words, sentences, and ideas using repetition, concrete language, and the like; a low-cohesion text, by contrast, requires the reader him- or herself to make many of the connections needed to comprehend the text. High-cohesion texts are not necessarily "better" than low-cohesion texts, but they are easier to read.

The standard Coh-Metrix report includes information on more than sixty indices related to text cohesion, so it can be daunting to the layperson or even to a professional educator unfamiliar with the indices. Coh-Metrix staff have worked to isolate the most revealing, informative factors from among the many they consider, but these "key factors" are not yet widely available to the public, nor have the results they yield been calibrated to the Standards' text complexity grade bands. The greatest value of these factors may well be the promise they offer of more advanced and usable tools yet to come.

Reader and Task Considerations

The use of qualitative and quantitative measures to assess text complexity is balanced in the Standards' model by the expectation that educators will employ professional judgment to match texts to particular students and tasks. Numerous considerations go into such matching. For example, harder texts may be appropriate for highly knowledgeable or skilled readers, and easier texts may be suitable as an expedient for building struggling readers' knowledge or reading skill up to the level required by the Standards. Highly motivated readers are often willing to put in the extra effort required to read harder texts that tell a story or contain information in which they are deeply interested. Complex tasks may require the kind of information contained only in similarly complex texts.

Numerous factors associated with the individual reader are relevant when determining whether a given text is appropriate for him or her. The RAND Reading Study Group identified many such factors in the 2002 report *Reading for Understanding*:

> The reader brings to the act of reading his or her cognitive capabilities (attention, memory, critical analytic ability, inferencing, visualization); motivation (a purpose for reading, interest in the content, self-efficacy as a reader); knowledge (vocabulary and topic knowledge, linguistic and discourse knowledge, knowledge of

comprehension strategies); and experiences.

As part of describing the activity of reading, the RAND group also named important task-related variables, including the reader's purpose (which might shift over the course of reading), "the type of reading being done, such as skimming (getting the gist of the text) or studying (reading the text with the intent of retaining the information for a period of time)," and the intended outcome, which could include "an increase in knowledge, a solution to some real-world problem, and/or engagement with the text."[4]

Key Considerations in Implementing Text Complexity

Texts and Measurement Tools

The tools for measuring text complexity are at once useful and imperfect. Each of the qualitative and quantitative tools described above has its limitations, and none is completely accurate. The development of new and improved text complexity tools should follow the release of the Standards as quickly as possible. In the meantime, the Standards recommend that multiple quantitative measures be used whenever possible and that their results be confirmed or overruled by a qualitative analysis of the text in question.

Certain measures are less valid or inappropriate for certain kinds of texts. Current quantitative measures are suitable for prose and dramatic texts. Until such time as quantitative tools for capturing poetry's difficulty are developed, determining whether a poem is appropriately complex for a given grade or grade band will necessarily be a matter of a qualitative assessment meshed with reader-task considerations. Furthermore, texts for kindergarten and grade 1 may not be appropriate for quantitative analysis, as they often contain difficult-to-assess features designed to aid early readers in acquiring written language. The Standards' poetry and K–1 text exemplars were placed into grade bands by expert teachers drawing on classroom experience.

Many current quantitative measures underestimate the challenge posed by complex narrative fiction. Quantitative measures of text complexity, particularly those that rely exclusively or in large part on word- and sentence-level factors, tend to assign sophisticated works of literature excessively low scores. For example, as illustrated in example 2 below, some widely used quantitative measures, including the Flesch-Kincaid Grade Level test and the Lexile Framework for Reading, rate the Pulitzer Prize–winning novel *Grapes of Wrath* as appropriate for grades 2–3. This counterintuitive result emerges because works such as *Grapes* often express complex ideas in relatively commonplace language (familiar words and simple syntax), especially in the form of dialogue that mimics everyday speech. Until widely available quantitative tools can better account for factors recognized as making such texts challenging, including multiple levels of meaning and mature themes, preference should likely be given to qualitative measures of text complexity when evaluating narrative fiction intended for students in grade 6 and above.

Measures of text complexity must be aligned with college and career readiness expectations for all students. Qualitative scales of text complexity should be anchored at one end by descriptions of texts representative of those required in typical first-year credit-bearing college courses and in workforce training programs. Similarly, quantitative measures should identify the college- and career-ready reading level as one endpoint of the scale. MetaMetrics, for example, has realigned its Lexile ranges to match the Standards' text complexity grade bands and has adjusted upward its trajectory of reading comprehension development through the grades to indicate that all students should be reading at the college and career readiness level by no later than the end of high school.

Figure 3: Text Complexity Grade Bands and Associated Lexile Ranges (in Lexiles)

Text Complexity Grade Band in the Standards	Old Lexile Ranges	Lexile Ranges Aligned to CCR expectations
K–1	N/A	N/A
2–3	450–725	450–790
4–5	645–845	770–980
6–8	860–1010	955–1155
9–10	960–1115	1080–1305
11–CCR	1070–1220	1215–1355

[4]RAND Reading Study Group. (2002). *Reading for understanding: Toward an R&D program in reading comprehension.* Santa Monica, CA: RAND. The quoted text appears in pages xiii–xvi.

Readers and Tasks

Students' ability to read complex text does not always develop in a linear fashion. Although the progression of Reading standard 10 (see below) defines required grade-by-grade growth in students' ability to read complex text, the development of this ability in individual students is unlikely to occur at an unbroken pace. Students need opportunities to stretch their reading abilities but also to experience the satisfaction and pleasure of easy, fluent reading within them, both of which the Standards allow for. As noted above, such factors as students' motivation, knowledge, and experiences must also come into play in text selection. Students deeply interested in a given topic, for example, may engage with texts on that subject across a range of complexity. Particular tasks may also require students to read harder texts than they would normally be required to. Conversely, teachers who have had success using particular texts that are easier than those required for a given grade band should feel free to continue to use them so long as the general movement during a given school year is toward texts of higher levels of complexity.

Students reading well above and well below grade-band level need additional support. Students for whom texts within their text complexity grade band (or even from the next higher band) present insufficient challenge must be given the attention and resources necessary to develop their reading ability at an appropriately advanced pace. On the other hand, students who struggle greatly to read texts within (or even below) their text complexity grade band must be given the support needed to enable them to read at a grade-appropriate level of complexity.

Even many students on course for college and career readiness are likely to need scaffolding as they master higher levels of text complexity. As they enter each new grade band, many students are likely to need at least some extra help as they work to comprehend texts at the high end of the range of difficulty appropriate to the band. For example, many students just entering grade 2 will need some support as they read texts that are advanced for the grades 2–3 text complexity band. Although such support is educationally necessary and desirable, instruction must move generally toward *decreasing scaffolding* and *increasing independence*, with the goal of students reading independently and proficiently within a given grade band by the end of the band's final year (continuing the previous example, the end of grade 3).

The Standards' Grade-Specific Text Complexity Demands

As illustrated in figure 4, text complexity in the Standards is defined in grade bands: grades 2–3, 4–5, 6–8, 9–10, and 11–CCR.[5] Students in the first year(s) of a given band are expected by the end of the year to read and comprehend proficiently within the band, with scaffolding as needed at the high end of the range. Students in the last year of a band are expected by the end of the year to read and comprehend independently and proficiently within the band.

Figure 4: The Progression of Reading Standard 10

Grade(s)	Reading Standard 10 (individual text types omitted)
K	Actively engage in group reading activities with purpose and understanding.
1	With prompting and support, read prose and poetry [informational texts] of appropriate complexity for grade 1.
2	By the end of the year, read and comprehend literature [informational texts] in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.
3	By the end of the year, read and comprehend literature [informational texts] at the high end of the grades 2–3 text complexity band independently and proficiently.
4	By the end of the year, read and comprehend literature [informational texts] in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.
5	By the end of the year, read and comprehend literature [informational texts] at the high end of the grades 4–5 text complexity band independently and proficiently.
6	By the end of the year, read and comprehend literature [informational texts, history/social studies texts, science/technical texts] in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
7	By the end of the year, read and comprehend literature [informational texts, history/social studies texts, science/technical texts] in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
8	By the end of the year, read and comprehend literature [informational texts, history/social studies texts, science/technical texts] at the high end of the grades 6–8 text complexity band independently and proficiently.
9–10	By the end of grade 9, read and comprehend literature [informational texts, history/social studies texts, science/technical texts] in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 10, read and comprehend literature [informational texts, history/social studies texts, science/technical texts] at the high end of the grades 9–10 text complexity band independently and proficiently.
11–12	By the end of grade 11, read and comprehend literature [informational texts, history/social studies texts, science/technical texts] in the grades 11–CCR text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 12, read and comprehend literature [informational texts, history/social studies texts, science/technical texts] at the high end of the grades 11–CCR text complexity band independently and proficiently.

[5]As noted above in "Key Considerations in Implementing Text Complexity," K–1 texts are not amenable to quantitative measure. Furthermore, students in those grades are acquiring the code at varied rates. Hence, the Standards' text complexity requirements begin formally with grade 2.

Speaking and Listening

The Special Role of Speaking and Listening in K–5 Literacy

If literacy levels are to improve, the aims of the English language arts classroom, especially in the earliest grades, must include oral language in a purposeful, systematic way, in part because it helps students master the printed word. Besides having intrinsic value as modes of communication, listening and speaking are necessary prerequisites of reading and writing (Fromkin, Rodman, & Hyams, 2006; Hulit, Howard, & Fahey, 2010; Pence & Justice, 2007; Stuart, Wright, Grigor, & Howey, 2002). The interrelationship between oral and written language is illustrated in the table below, using the distinction linguists make between *receptive language* (language that is heard, processed, and understood by an individual) and *expressive language* (language that is generated and produced by an individual).

Figure 14: Receptive and Expressive Oral and Written Language

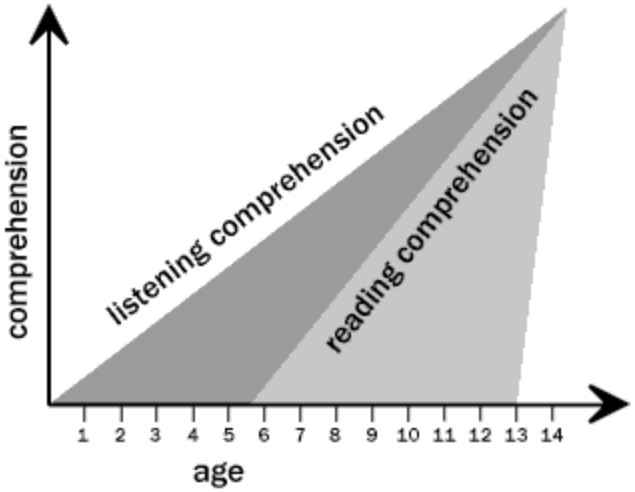
	Receptive Language	Expressive Language
Oral Language	Listening	Speaking
Written Language	Reading (decoding + comprehension)	Writing (handwriting, spelling, written composition)

Oral language development precedes and is the foundation for written language development; in other words, oral language is primary and written language builds on it. Children's oral language competence is strongly predictive of their facility in learning to read and write: listening and speaking vocabulary and even mastery of syntax set boundaries as to what children can read and understand no matter how well they can decode (Catts, Adolf, & Weismer, 2006; Hart & Risley, 1995; Hoover & Gough, 1990: Snow, Burns, & Griffin, 1998).

For children in preschool and the early grades, receptive and expressive abilities do not develop simultaneously or at the same pace: receptive language generally precedes expressive language. Children need to be able to understand words before they can produce and use them.

Oral language is particularly important for the youngest students. Hart and Risley (1995), who studied young children in the context of their early family life and then at school, found that the total number of words children had heard as preschoolers predicted how many words they understood and how fast they could learn new words in kindergarten. Preschoolers who had heard more words had larger vocabularies once in kindergarten. Furthermore, when the students were in grade 3, their early language competence from the preschool years still accurately predicted their language and reading comprehension. The preschoolers who had heard more words, and subsequently had learned more words orally, were better readers. In short, early language advantage persists and manifests itself in higher levels of literacy. A meta-analysis by Sticht and James (1984) indicates that the importance of oral language extends well beyond the earliest grades. As illustrated in the graphic below, Sticht and James found evidence strongly suggesting that children's listening comprehension outpaces reading comprehension until the middle school years (grades 6–8).

Figure 15: Listening and Reading Comprehension, by Age



The research strongly suggests that the English language arts classroom should explicitly address the link between oral and written language, exploiting the influence of oral language on a child's later ability to read by allocating instructional time to building children's listening skills, as called for in the Standards. The early grades should not focus on decoding alone, nor should the later grades pay attention only to building reading comprehension. Time should be devoted to reading fiction and content-rich selections aloud to young children, just as it is to providing those same children with the skills they will need to decode and encode.

This focus on oral language is of greatest importance for the children most at risk—children for whom English is a second language and children who have not been exposed at home to the kind of language found in written texts (Dickinson & Smith, 1994). Ensuring that all children in the United States have access to an excellent education requires that issues of oral language come to the fore in elementary classrooms.

Read-Alouds and the Reading-Speaking-Listening Link

Generally, teachers will encourage children in the upper elementary grades to read texts independently and reflect on them in writing. However, children in the early grades—particularly kindergarten through grade 3—benefit from participating in rich, structured conversations with an adult in response to written texts that are read aloud, orally comparing and contrasting as well as analyzing and synthesizing (Bus, Van Ijzendoorn, & Pellegrini, 1995; Feitelstein, Goldstein, Iraqui, & Share, 1993; Feitelstein, Kita, & Goldstein, 1986; Whitehurst et al., 1988). The Standards acknowledge the importance of this aural dimension of early learning by including a robust set of K–3 Speaking and Listening standards and by offering in Appendix B an extensive number of read-aloud text exemplars appropriate for K–1 and for grades 2–3.

Because, as indicated above, children's listening comprehension likely outpaces reading comprehension until the middle school years, it is particularly important that students in the earliest grades build knowledge through being read to as well as through reading, with the balance gradually shifting to reading independently. By reading a story or nonfiction selection aloud, teachers allow children to experience written language without the burden of decoding, granting them access to content that they may not be able to read and understand by themselves. Children are then free to focus their mental energy on the words and ideas presented in the text, and they will eventually be better prepared to tackle rich written content on their own. Whereas most titles selected for kindergarten and grade 1 will need to be read aloud exclusively, some titles selected for grades 2–5 may be appropriate for read-alouds as well as for reading independently. Reading aloud to students in the upper grades should not, however, be used as a substitute for independent reading by students; read-alouds at this level should supplement and enrich what students are able to read by themselves.

Language

Overview

The Standards take a hybrid approach to matters of conventions, knowledge of language, and vocabulary. As noted in the table below, certain elements important to reading, writing, and speaking and listening are included in those strands to help provide a coherent set of expectations for those modes of communication.

Figure 16: Elements of the Language Standards
in the Reading, Writing, and Speaking and Listening Strands

Strand	Standard
Reading	**R.CCR.4.** Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
Writing	**W.CCR.5.** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
Speaking and Listening	**SL.CCR.6.** Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

In many respects, however, conventions, knowledge of language, and vocabulary extend across reading, writing, speaking, and listening. Many of the conventions-related standards are as appropriate to formal spoken English as they are to formal written English. Language choice is a matter of craft for both writers and speakers. New words and phrases are acquired not only through reading and being read to but also through direct vocabulary instruction and (particularly in the earliest grades) through purposeful classroom discussions around rich content.

The inclusion of Language standards in their own strand should not be taken as an indication that skills related to conventions, knowledge of language, and vocabulary are unimportant to reading, writing, speaking, and listening; indeed, they are inseparable from such contexts.

Conventions and Knowledge of Language

Teaching and Learning the Conventions of Standard English

Development of Grammatical Knowledge

Grammar and usage development in children and in adults rarely follows a linear path. Native speakers and language learners often begin making new errors and seem to lose their mastery of particular grammatical structures or print conventions as they learn new, more complex grammatical structures or new usages of English, such as in college-level persuasive essays (Bardovi-Harlig, 2000; Bartholomae, 1980; DeVilliers & DeVilliers, 1973; Shaughnessy, 1979). These errors are often signs of language development as learners synthesize new grammatical and usage knowledge with their current knowledge. Thus, students will often need to return to the same grammar topic in greater complexity as they move through K–12 schooling and as they increase the range and complexity of the texts and communicative contexts in which they read and write. The Standards account for the recursive, ongoing nature of grammatical knowledge in two ways. First, the Standards return to certain important language topics in higher grades at greater levels of sophistication. For instance, instruction on verbs in early elementary school (K–3) should address simple present, past, and future tenses; later instruction should extend students' knowledge of verbs to other tenses (progressive and perfect tenses[8] in grades 4 and 5), mood (modal auxiliaries in grade 4 and grammatical mood in grade 8) and voice (active and passive voice in grade 8). Second, the Standards identify with an asterisk (*) certain skills and understandings that students are to be introduced to in basic ways at lower grades but that are likely in need of being

[8]Though progressive and perfect are more correctly *aspects* of verbs rather than *tenses*, the Standards use the more familiar notion here and throughout for the sake of accessibility.

retaught and relearned in subsequent grades as students' writing and speaking matures and grows more complex. (See "Progressive Language Skills in the Standards," below.)

Making Appropriate Grammar and Usage Choices in Writing and Speaking

Students must have a strong command of the grammar and usage of spoken and written standard English to succeed academically and professionally. Yet there is great variety in the language and grammar features of spoken and written standard English (Biber, 1991; Krauthamer, 1999), of academic and everyday standard English, and of the language of different disciplines (Schleppegrell, 2001). Furthermore, in the twenty-first century, students must be able to communicate effectively in a wide range of print and digital texts, each of which may require different grammatical and usage choices to be effective. Thus, grammar and usage instruction should acknowledge the many varieties of English that exist and address differences in grammatical structure and usage between these varieties in order to help students make purposeful language choices in their writing and speaking (Fogel & Ehri, 2000; Wheeler & Swords, 2004). Students must also be taught the *purposes* for using particular grammatical features in particular disciplines or texts; if they are taught simply to vary their grammar and language to keep their writing "interesting," they may actually become more confused about how to make effective language choices (Lefstein, 2009). The Standards encourage this sort of instruction in a number of ways, most directly through a series of grade-specific standards associated with Language CCR standard 3 that, beginning in grade 1, focuses on making students aware of language variety.

Using Knowledge of Grammar and Usage for Reading and Listening Comprehension

Grammatical knowledge can also aid reading comprehension and interpretation (Gargani, 2006; Williams, 2000, 2005). Researchers recommend that students be taught to use knowledge of grammar and usage, as well as knowledge of vocabulary, to comprehend complex academic texts (García & Beltrán, 2003; Short & Fitzsimmons, 2007; RAND Reading Study Group, 2002). At the elementary level, for example, students can use knowledge of verbs to help them understand the plot and characters in a text (Williams, 2005). At the secondary level, learning the grammatical structures of nonstandard dialects can help students understand how accomplished writers such as Harper Lee, Langston Hughes, and Mark Twain use various dialects of English to great advantage and effect, and can help students analyze setting, character, and author's craft in great works of literature. Teaching about the grammatical patterns found in specific disciplines has also been shown to help English language learners' reading comprehension in general and reading comprehension in history classrooms in particular (Achugar, Schleppegrell, & Oteíza, 2007; Gargani, 2006).

As students learn more about the patterns of English grammar in different communicative contexts throughout their K–12 academic careers, they can develop more complex understandings of English grammar and usage. Students can use this understanding to make more purposeful and effective choices in their writing and speaking and more accurate and rich interpretations in their reading and listening.

Progressive Language Skills in the Standards

While all of the Standards are cumulative, certain Language skills and understandings are more likely than others to need to be retaught and relearned as students advance through the grades. Beginning in grade 3, the Standards note such "progressive" skills and understandings with an asterisk (*) in the main document; they are also summarized in the table on pages 29 and 55 of that document as well as on page 34 of this appendix. These skills and understandings should be mastered at a basic level no later than the end of the grade in which they are introduced in the Standards. In subsequent grades, as their writing and speaking become more sophisticated, students will need to learn to apply these skills and understandings in more advanced ways.

The following example shows how one such task—ensuring subject-verb agreement, formally introduced in the Standards in grade 3—can become more challenging as students' writing matures. The sentences in the table below are taken verbatim from the annotated writing samples found in Appendix C. The example is illustrative only of a general development of sophistication and not meant to be exhaustive, to set firm grade-specific expectations, or to establish a precise hierarchy of increasing difficulty in subject-verb agreement.

Figure 17: Example of Subject-Verb Agreement Progression across Grades

Example	Condition
Horses are so beautiful and fun to ride. [Horses, grade 3]	Subject and verb next to each other
When I started out the door, I noticed that Tigger and Max were following me to school. [Glowing Shoes, grade 4]	Compound subject joined by *and*
A mother or female horse is called a mare. [Horses, grade 3]	Compound subject joined by *or*; each subject takes a singular verb[1]
The first thing to do is research, research, research! [Zoo Field Trip, grade 4]	Intervening phrase between subject and verb
If the watershed for the pools is changed, the condition of the pools changes. [A Geographical Report, grade 7]	Intervening phrase between each subject and verb suggesting a different number for the verb than the subject calls for
Another was the way to the other evil places. [Getting Shot and Living Through It, grade 5] *All his stories are the same type.* [Author Response: Roald Dahl, grade 5] *All the characters that Roald Dahl ever made were probably fake characters.* [Author Response: Roald Dahl, grade 5] *One of the reasons why my cat Gus is the best pet is because he is a cuddle bug.* [A Pet Story About My Cat . . . Gus, grade 6]	Indefinite pronoun as subject, with increasing distance between subject and verb

[1]In this particular example, *or female horse* should have been punctuated by the student as a nonrestrictive appositive, but the sentence as is illustrates the notion of a compound subject joined by or.

Figure 18: Language Progressive Skills, by Grade

The following standards, marked with an asterisk (*) in the main Standards document, are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking.

Standard	Grade(s)							
	3	4	5	6	7	8	9–10	11–12
L.3.1f. Ensure subject-verb and pronoun-antecedent agreement.								
L.3.3a. Choose words and phrases for effect.								
L.4.1f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.								
L.4.1g. Correctly use frequently confused words (e.g., *to/too/two; there/their*).								
L.4.3a. Choose words and phrases to convey ideas precisely.*								
L.4.3b. Choose punctuation for effect.								
L.5.1d. Recognize and correct inappropriate shifts in verb tense.								
L.5.2a. Use punctuation to separate items in a series.†								
L.6.1c. Recognize and correct inappropriate shifts in pronoun number and person.								
L.6.1d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).								
L.6.1e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.								
L.6.2a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.								
L.6.3a. Vary sentence patterns for meaning, reader/listener interest, and style.‡								
L.6.3b. Maintain consistency in style and tone.								
L.7.1c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
L.7.3a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.								
L.8.1d. Recognize and correct inappropriate shifts in verb voice and mood.								
L.9–10.1a. Use parallel structure.								

* Subsumed by L.7.3a
† Subsumed by L.9–10.1a
‡ Subsumed by L.11–12.3a

Vocabulary

Acquiring Vocabulary

> Words are not just words. They are the nexus—the interface—between communication and thought. When we read, it is through words that we build, refine, and modify our knowledge. What makes vocabulary valuable and important is not the words themselves so much as the understandings they afford.
>
> Marilyn Jager Adams (2009, p. 180)

The importance of students acquiring a rich and varied vocabulary cannot be overstated. Vocabulary has been empirically connected to reading comprehension since at least 1925 (Whipple, 1925) and had its importance to comprehension confirmed in recent years (National Institute of Child Health and Human Development, 2000). It is widely accepted among researchers that the difference in students' vocabulary levels is a key factor in disparities in academic achievement (Baumann & Kameenui, 1991; Becker, 1977; Stanovich, 1986) but that vocabulary instruction has been neither frequent nor systematic in most schools (Biemiller, 2001; Durkin, 1978; Lesaux, Kieffer, Faller, & Kelley, 2010; Scott & Nagy, 1997).

Research suggests that if students are going to grasp and retain words and comprehend text, they need incremental, repeated exposure in a variety of contexts to the words they are trying to learn. When students make multiple connections between a new word and their own experiences, they develop a nuanced and flexible understanding of the word they are learning. In this way, students learn not only what a word means but also how to use that word in a variety of contexts, and they can apply appropriate senses of the word's meaning in order to understand the word in different contexts (Landauer & Dumais, 1997; Landauer, McNamara, Dennis, & Kintsch, 2007; Nagy, Herman, & Anderson, 1985).

Initially, children readily learn words from oral conversation because such conversations are context rich in ways that aid in vocabulary acquisition: in discussions, a small set of words (accompanied by gesture and intonation) is used with great frequency to talk about a narrow range of situations children are exposed to on a day-to-day basis. Yet as children reach school age, new words are introduced less frequently in conversation, and consequently vocabulary acquisition eventually stagnates by grade 4 or 5 unless students acquire additional words from written context (Hayes & Ahrens, 1988).

Written language contains literally thousands of words more than are typically used in conversational language. Yet writing lacks the interactivity and nonverbal context that make acquiring vocabulary through oral conversation relatively easy, which means that purposeful and ongoing concentration on vocabulary is needed (Hayes & Ahrens, 1988). In fact, at most between 5 and 15 percent of new words encountered upon first reading are retained, and the weaker a student's vocabulary is the smaller the gain (Daneman & Green, 1986; Hayes & Ahrens, 1988; Herman, Anderson, Pearson, & Nagy, 1987; Sternberg & Powell, 1983). Yet research shows that if students are truly to understand what they read, they must grasp upward of 95 percent of the words (Betts, 1946; Carver, 1994; Hu & Nation, 2000; Laufer, 1988).

The challenge in reaching what we might call "lexical dexterity" is that, in any given instance, it is not the entire spectrum of a word's history, meanings, usages, and features that matters but only those aspects that are relevant at that moment. Therefore, for a reader to grasp the meaning of a word, two things must happen: first, the reader's internal representation of the word must be sufficiently complete and well articulated to allow the intended meaning to be known to him or her; second, the reader must understand the context well enough to select the intended meaning from the realm of the word's possible meanings (which in turn depends on understanding the surrounding words of the text).

Key to students' vocabulary development is building rich and flexible word knowledge. Students need plentiful opportunities to use and respond to the words they learn through playful informal talk, discussion, reading or being read to, and responding to what is read. Students benefit from instruction about the connections and patterns in language. Developing in students an analytical attitude toward the logic and sentence structure of their texts, alongside an awareness of word parts, word origins, and word relationships, provides students with a sense of how language works such that syntax, morphology, and etymology can become useful cues in building meaning as students encounter new words and concepts (Beck, McKeown, & Kucan, 2008). Although direct study of language is essential to student progress, most word learning occurs indirectly and unconsciously through normal reading, writing, listening, and speaking (Miller, 1999; Nagy, Anderson, & Herman, 1987).

As students are exposed to and interact with language throughout their school careers, they are able to acquire understandings of word meanings, build awareness of the workings of language, and apply their knowledge to comprehend and produce language.

Three Tiers of Words

Isabel L. Beck, Margaret G. McKeown, and Linda Kucan (2002, 2008) have outlined a useful model for conceptualizing categories of words readers encounter in texts and for understanding the instructional and learning challenges that words in each category present. They describe three levels, or *tiers*, of words in terms of the words' commonality (more to less frequently occurring) and applicability (broader to narrower).

While the term *tier* may connote a hierarchy, a ranking of words from least to most important, the reality is that all three tiers of words are vital to comprehension and vocabulary development, although learning tier two and three words typically requires more deliberate effort (at least for students whose first language is English) than does learning tier one words.

- **Tier One words** are the words of everyday speech usually learned in the early grades, albeit not at the same rate by all children. They are not considered a challenge to the average native speaker, though English language learners of any age will have to attend carefully to them. While Tier One words are important, they are not the focus of this discussion.

- **Tier Two words** (what the Standards refer to as *general academic* words) are far more likely to appear in written texts than in speech. They appear in all sorts of texts: informational texts (words such as *relative*, *vary*, *formulate*, *specificity*, and *accumulate*), technical texts (*calibrate*, *itemize*, *periphery*), and literary texts (*misfortune*, *dignified*, *faltered*, *unabashedly*). Tier Two words often represent subtle or precise ways to say relatively simple things—*saunter* instead of *walk*, for example. Because Tier Two words are found across many types of texts, they are highly generalizable.

- **Tier Three words** (what the Standards refer to as *domain-specific* words) are specific to a domain or field of study (*lava*, *carburetor*, *legislature*, *circumference*, *aorta*) and key to understanding a new concept within a text. Because of their specificity and close ties to content knowledge, Tier Three words are far more common in informational texts than in literature. Recognized as new and "hard" words for most readers (particularly student readers), they are often explicitly defined by the author of a text, repeatedly used, and otherwise heavily scaffolded (e.g., made a part of a glossary).

Tier Two Words and Access to Complex Texts

Because Tier Three words are obviously unfamiliar to most students, contain the ideas necessary to a new topic, and are recognized as both important and specific to the subject area in which they are instructing students, teachers often define Tier Three words prior to students encountering them in a text and then reinforce their acquisition throughout a lesson. Unfortunately, this is not typically the case with Tier Two words, which by definition are not unique to a particular discipline and as a result are not the clear responsibility of a particular content area teacher. What is more, many Tier Two words are far less well defined by contextual clues in the texts in which they appear and are far less likely to be defined explicitly within a text than are Tier Three words. Yet Tier Two words are frequently encountered in complex written texts and are particularly powerful because of their wide applicability to many sorts of reading. Teachers thus need to be alert to the presence of Tier Two words and determine which ones need careful attention.

Tier Three Words and Content Learning

This normal process of word acquisition occurs up to four times faster for Tier Three words when students have become familiar with the domain of the discourse and encounter the word in different contexts (Landauer & Dumais, 1997). Hence, vocabulary development for these words occurs most effectively through a coherent course of study in which subject matters are integrated and coordinated across the curriculum and domains become familiar to the student over several days or weeks.

Examples of Tier Two and Tier Three Words in Context

The following annotated samples call attention to Tier Two and **Tier Three** words in particular texts and, by singling them out, foreground the importance of these words to the meaning of the texts in which they appear. Both samples appear without annotations in Appendix B.

Example 1: *Volcanoes* (Grades 4–5 Text Complexity Band

Excerpt

> In **early times**, no one knew how **volcanoes formed** or why they **spouted red-hot molten** rock. In **modern times**, scientists began to study **volcanoes**. They still don't know all the answers, but they know much about how a **volcano** works.

> Our planet made up of many **layers** of rock. The top **layers** of **solid** rock are called the **crust**. Deep beneath the **crust** is the **mantle**, where it is so hot that some rock melts. The melted, or **molten,** rock is called **magma**.
>
> **Volcanoes** are **formed** when **magma** pushes its way up through the crack in Earth's **crust**. This is called a **volcanic eruption**. When **magma pours forth** on the **surface**, it is called **lava**.
>
> Simon, Seymour. *Volcanoes.* New York: HarperCollins, 2006. (2006)

Of the Tier Two words, among the most important to the overall meaning of the excerpt is **layers**. An understanding of the word **layers** is necessary both to visualize the structure of the crust ("the top **layers** of **solid** rock are called the **crust**") and to grasp the notion of the planet being composed of **layers**, of which the **crust** and the **mantle** are uppermost. Perhaps equally important are the word **spouted** and the phrase **pours forth**; an understanding of each of these is needed to visualize the action of a volcano. The same could be said of the word **surface**. Both **layers** and **surface** are likely to reappear in middle and high school academic texts in both literal and figurative contexts ("this would seem plausible on the surface"; "this story has layers of meaning"), which would justify more intensive instruction in them in grades 4–5.

Tier Three words often repeat; in this excerpt, all of the Tier Three words except **mantle** and **lava** appear at least twice. V**olcano(es)** appears four times—five if **volcanic** is counted. As is also typical with Tier Three words, the text provides the reader with generous support in determining meaning, including explicit definitions (e.g., "the melted, or **molten**, rock is called **magma**") and repetition and overlapping sentences (e.g., . . . called the **crust**. Deep beneath the **crust** . . .).

Example 2: *Freedom Walkers* (Grades 6–8 Text Complexity Band)

Excerpt

> From the Introduction: "Why They Walked"
>
> Not so long ago in Montgomery, Alabama, the color of your skin **determined** where you could sit on a public bus. If you happened to be an African American, you had to sit in the back of the bus, even if there were empty seats up front.
>
> Back then, **racial segregation** was the rule throughout the American South. Strict laws—called **"Jim Crow"** laws—enforced a system of **white supremacy** that **discriminated** against blacks and kept them in their place as **second-class** citizens.
>
> People were separated by race from the moment they were born in **segregated** hospitals until the day they were buried in **segregated** cemeteries. Blacks and whites did not attend the same schools, **worship** in the same churches, eat in the same restaurants, sleep in the same hotels, drink from the same water fountains, or sit together in the same movie theaters.
>
> In Montgomery, it was against the law for a white person and a Negro to play checkers on public property or ride together in a taxi.
>
> Most southern blacks were denied their right to vote. The biggest **obstacle** was the **poll tax**, a special tax that was required of all voters but was too costly for many blacks and for poor whites as well. Voters also had to pass a **literacy** test to prove that they could read, write, and understand the U.S. Constitution. These tests were often **rigged** to **disqualify** even highly educated blacks. Those who overcame the **obstacles** and insisted on **registering** as voters faced threats, **harassment** and even physical violence. As a result, African Americans in the South could not express their **grievances** in the voting booth, which for the most part, was closed to them. But there were other ways to protest, and one day a half century ago, the black citizens in Montgomery rose up in protest and united to demand their rights—by walking peacefully.
>
> It all started on a bus.
>
> Freedman, Russell. *Freedom Walkers: The Story of the Montgomery Bus Boycott.* New York: Holiday House, 2006. (2006)

The first Tier Two word encountered in the excerpt, **determined**, is essential to understanding the overall meaning of the text. The power of **determined** here lies in the notion that skin color in Montgomery, Alabama, at that time was the causal agent for all that follows. The centrality of **determined** to the topic merits the word intensive attention. Its study is further merited by the fact that it has multiple meanings, is likely to appear in future literary and informational texts, and is part of a family of related words (*determine*, *determination*, *determined*, *terminate*, *terminal*).

Understanding the excerpt's Tier Three words is also necessary to comprehend the text fully. As was the case in example 1, these words are often repeated and defined in context. **Segregation**, for example, is introduced in the second paragraph, and while determining its meaning from the sentence in which it appears might be difficult, several closely related concepts (**white supremacy**, **discriminated**, **second-class**) appears in the next sentence to provide more context.

Glossary of Key Terms

Every effort has been made to ensure that the phrasing of the Standards is as clear and free of jargon as possible. When used, specialized and discipline-specific terms (e.g., *simile*, *stanza*, *declarative sentence*) typically conform to their standard definition, and readers are advised to consult high-quality dictionaries or standard resources in the field for clarification. The terms defined below are limited to those words and phrases particularly important to the Standards and that have a meaning unique to this document. *CCSS* refers to the main Common Core State Standards document; the names of various sections (e.g., "Reading") refer to parts of this appendix.

Definitions of many important terms associated with reading foundational skills appear in Reading Foundational Skills, pages 17–22. Descriptions of the Standards' three writing types (argument, informative/explanatory writing, and narrative) can be found in Writing, pages 23–24.

Domain-specific words and phrases – Vocabulary specific to a particular field of study (domain), such as the human body (CCSS, p. 33); in the Standards, *domain-specific words and phrases* are analogous to Tier Three words (Language, p. 33).

Editing – A part of writing and preparing presentations concerned chiefly with improving the clarity, organization, concision, and correctness of expression relative to task, purpose, and audience; compared to *revising*, a smaller-scale activity often associated with surface aspects of a text; see also *revising*, *rewriting*

Emergent reader texts – Texts consisting of short sentences comprised of learned sight words and CVC words; may also include rebuses to represent words that cannot yet be decoded or recognized; see also *rebus*

Evidence – Facts, figures, details, quotations, or other sources of data and information that provide support for claims or an analysis and that can be evaluated by others; should appear in a form and be derived from a source widely accepted as appropriate to a particular discipline, as in details or quotations from a text in the study of literature and experimental results in the study of science

Focused question – A query narrowly tailored to task, purpose, and audience, as in a research query that is sufficiently precise to allow a student to achieve adequate specificity and depth within the time and format constraints

Formal English – See *standard English*

General academic words and phrases – Vocabulary common to written texts but not commonly a part of speech; in the Standards, *general academic words and phrases* are analogous to Tier Two words and phrases (Language, p. 33)

Independent(ly) – A student performance done without *scaffolding* from a teacher, other adult, or peer; in the Standards, often paired with *proficient(ly)* to suggest a successful student performance done without *scaffolding*; in the Reading standards, the act of reading a text without scaffolding, as in an assessment; see also *proficient(ly)*, *scaffolding*

More sustained research project – An investigation intended to address a relatively expansive query using several sources over an extended period of time, as in a few weeks of instructional time

Point of view – Chiefly in literary texts, the narrative point of view (as in first- or third-person narration); more broadly, the position or perspective conveyed or represented by an author, narrator, speaker, or character

Print or digital (texts, sources) – Sometimes added for emphasis to stress that a given standard is particularly likely to be applied to electronic as well as traditional texts; the Standards are generally assumed to apply to both

Proficient(ly) – A student performance that meets the criterion established in the Standards as measured by a teacher or assessment; in the Standards, often paired with *independent(ly)* to suggest a successful student performance done without *scaffolding*; in the Reading standards, the act of reading a text with comprehension; see also *independent(ly)*, *scaffolding*

Rebus – A mode of expressing words and phrases by using pictures of objects whose names resemble those words

Revising – A part of writing and preparing presentations concerned chiefly with a reconsideration and reworking of the content of a text relative to task, purpose, and audience; compared to *editing*, a larger-scale activity often associated with the overall content and structure of a text; see also *editing*, *rewriting*

Rewriting – A part of writing and preparing presentations that involves largely or wholly replacing a previous, unsatisfactory effort with a new effort, better aligned to task, purpose, and audience, on the same or a similar topic or theme; compared to *revising*, a larger-scale activity more akin to replacement than refinement; see also *editing*, *revising*

Scaffolding – Temporary guidance or assistance provided to a student by a teacher, another adult, or a more capable peer, enabling the student to perform a task he or she otherwise would not be able to do alone, with the goal of fostering the student's capacity to perform the task on his or her own later on[*]

Short research project – An investigation intended to address a narrowly tailored query in a brief period of time, as in a few class periods or a week of instructional time

Source – A text used largely for informational purposes, as in research.

Standard English – In the Standards, the most widely accepted and understood form of expression in English in the United States; used in the Standards to refer to formal English writing and speaking; the particular focus of Language standards 1 and 2 (CCSS, pp. 26, 28, 52, 54)

Technical subjects – A course devoted to a practical study, such as engineering, technology, design, business, or other workforce-related subject; a technical aspect of a wider field of study, such as art or music

Text complexity – The inherent difficulty of reading and comprehending a text combined with consideration of reader and task variables; in the Standards, a three-part assessment of text difficulty that pairs qualitative and quantitative measures with reader-task considerations (CCSS, pp. 31, 57; Reading, pp. 4–16)

Text complexity band – A range of text difficulty corresponding to grade spans within the Standards; specifically, the spans from grades 2–3, grades 4–5, grades 6–8, grades 9–10, and grades 11–CCR (college and career readiness)

Textual evidence – See *evidence*

With prompting and support/with (some) guidance and support – See *scaffolding*

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[*] Though Vygotsky himself does not use the term *scaffolding*, the educational meaning of the term relates closely to his concept of the zone of proximal development. See L. S. Vygotsky (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.